Municipality/Organization:	Town of Wenham, Massachusetts
EPA NPDES Permit Number:	MAR041230
MassDEP Transmittal Number:	**W-**
Annual Report Number & Reporting Period:	**April 1, 2006 – March 31, 2007**

NPDES PII Small MS4 General Permit Annual Report (Due: May 1, 2007)

Part I. General Information

Contact Person: Bill Tyack Title: Director of Public Works

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Mailing Address: 91 Grapevine Road, Wenham, MA 01984

Certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: Jeff A. Chelgren

Printed Name: Jeffrey A. Chelgren

Title: Town Administrator

Date: April 25, 2007

Part II. Self-Assessment

The Town of Wenham has completed the required self-assessment and determined that our municipality is in compliance with all permit conditions. The Town has finished or has begun the implementation of all of the goals listed in Part 3 of this permit.

The town has started the process of replacing older non-BMP style catch basins (CBs) with new deep sump CBs, and the Public Works/Highway Department has budgeted approximately $25,000 for further replacements during the upcoming permit year. The Public Works/Highway Department inspects all of the catchbasins in town and has not observed any dry weather flow (illicit detections) during any of these inspections.

Funding and manpower is always a concern when implementing any of the goals in this permit, but the Town will do its best to ensure all of the goals are implemented by the end of this permit's duration.

Part III. Summary of Minimum Control Measures

1. Public Education and Outreach

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
1A	Brochures/Fact Sheets	Public Works Department	Develop & distribute to all residents in water bill.	None – Development and distribution has already been completed in previous permit years.	The informational fliers will be distributed again at the next Town meeting in the Fall of 2007.
Revised					
2A	Storm Drain Stenciling	Public Works Department	Stencil storm drains at various locations around schools.	50-60 storm drains were stenciled in year 4, raising the total number of storm drains stenciled to approximately 150.	Storm drain stenciling to continue. Goal of approximately 50 more.
Revised					
3A	Develop web site	Public Works Department	Develop a public informational website.	Continued updating and maintaining the online GIS system of outfalls and stormdrain infrastructure. Continued the process of linking digital pictures of CBs and outfalls to the online GIS system.	Continue updating, maintaining, and linking pictures to the online GIS system.
Revised					
4A	Implement stormwater hotline	Public Works Department	Create a hotline that residents may use for information/reporting problems.	Any calls about stormwater issues are routed to the appropriate people at the Public Works/Highway Department.	Inform residents of the proper town offices to contact if they need information or to report problems dealing with stormwater issues. Create phone logs to document calls relating to stormwater issues. Maintain the logs with information on the calls received and the actions/responses performed.
Revised					

1a. Additions

2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
1B	Storm drain stenciling	Public Works Department	Public information.	50-60 storm drains were stenciled in year 4, raising the total number of storm drains stenciled to approximately 150.	Storm drain stenciling to continue. Goal of approximately 50 more.
Revised					
2B	Household hazardous waste collection	Public Works Department	Annual collections to promote a cleaner environment.	None – next scheduled collection day is for permit year 5.	A collection day is scheduled to tentatively take place on Sept. 8, 2007 with the Town of Hamilton.
Revised					
3B	Community cleanup	Public Works Department	Schedule community cleanup days to promote community awareness.	Cleanup day for the Pleasant Pond shoreline and vicinity was performed in June 2006.	Cleanup day for the Pleasant Pond shoreline and vicinity is tentatively scheduled for June 2007. Additional days may be scheduled based on the interest of local community groups.
Revised					
4B	Adopt a storm drain	Public Works Department	Have individuals/ groups cleanup storm drains to promote public awareness.	No community groups have shown interest in participating in the adopt-a-storm drain program.	Fliers will be distributed at future town meetings in an attempt to identify potential community groups interested in the adopt-a-storm drain program.
Revised					
Revised					

2a. Additions

3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
1C	Mapping	Public Works Department	Mapping catchbasins & outfalls with GIS/GPS.	Outfalls are continually being field located, inventoried and mapped using GIS. A total of 187 outfalls have been mapped on GIS. The total town wide stormwater infrastructure mapping is approximately 95% complete.	Continue with mapping of outfalls and the town's drainage system.
Revised					
2C	Identify problem areas	Public Works Department	Inspection of outfalls in dry/wet conditions to determine illicit connections.	Continued inspections of CBs during annual CB cleanings. No illicit connections were detected in the dry weather inspections.	Develop an inspection log/repair worklist to document problem areas that are discovered during annual inspections.
Revised					
3C	Develop regulations/fines	Public Works Department	Submit a town ordinance to be voted on to establish regulation/fines for illicit discharges.	An ordinance governing regulations/fines for illicit discharge was drafted and will be presented at town meeting in permit year 5.	The draft ordinance to establish regulations/fines will be presented at the town meeting in the Fall of 2007.
Revised					
4C	Elimination of illicit discharge	Public Works Department	Perform smoke testing on drainage systems to determine/eliminate illicit discharges.	None – No suspect discharges have been identified. Planned for Permit Year 5.	Any suspected illicit discharges noted during the CB/outfall inspections by the Public Works/Highway Department will be smoke tested to determine/eliminate the source of the discharges.
Revised					

3a. Additions

4. Construction Site Stormwater Runoff Control

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
1D	Ordinance/regulatory mechanism for development	Public Works Department & Planning Board	Limiting stormwater run-off.	An ordinance for construction site stormwater runoff control was drafted and will be presented at town meeting in permit year 5.	The draft ordinance will be presented at the town meeting in the Fall of 2007.
Revised					
2D	Site plan review	Public Works Department, Conservation & Planning Board.	Limiting storm water run-off.	The Public Works/Highway Department is now required to sign off on all new/re-development plans proposed in the town.	A draft ordinance for construction site plan review will be presented at the town meeting on in the Fall of 2007. The Public Works/Highway Department will continue to review all proposed plans for new/re-development in the town.
Revised					
3D	Site inspection	Public Works Department	Compliance with newly adopted ordinance.	The Planning Board, and the Public Works/Highway Department have been performing inspections for any new/re-development in the town.	A draft ordinance for construction site inspection will be presented at the town meeting on in the Fall of 2007.
Revised					
Revised					
Revised					

4a. Additions

5. Post-Construction Stormwater Management in New Development and Redevelopment

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
1E	Develop structural / non structural BMP's	Public Works Department	Reduce pollutants.	Four deep sump hooded CBs were replaced on Burnham Rd. One deep sump CB was installed on Kimball Ave. All proposed new/re-development plans have to be reviewed by the Public Works/Highway Department, and all new/replaced CBs are required to have deep sumps.	The public works and planning department will continue to promote the use of infiltration BMPs for new/re-development. The town obtained a grant from MADEP to provide 50 rain barrels to residents. They will be distributed starting in May 2007. Continue enforcing new/replaced CB to have deep sumps.
Revised					
2E	Ordinance governing post construction	Public Works Department / Town Boards	Reduce pollutants.	An ordinance governing post construction stormwater management was drafted and will be presented at town meeting in permit year 5.	The draft ordinance governing post construction stormwater management will be presented at the town meeting in the Fall of 2007.
Revised					
3E	Ensure long-term maintenance	Public Works Department / Private	Assure long-term maintenance.	Began a more aggressive maintenance plan for the town owned BMPs with frequent inspections by the Public Works/Highway Department. Permits were given to trap beavers that were restricting flow of rivers/streams and disrupting stormwater flows.	Discussions/information on long term maintenance will be given out to private parties in charge of BMPs.
Revised					
4E	Determine appropriate BMP	Public Works Department	Improve clarity/reduce sediment.	All proposed new/re-development plans have to be reviewed by the Public Works/Highway Department, and all new/replaced CBs are required to be installed with deep sumps. Appropriate BMPs are recommended for use whenever feasible.	The Public Works/Highway Department will still review all plans for new/re-development to ensure appropriate BMPs are being implemented.
Revised					

5a. Additions

6. Pollution Prevention and Good Housekeeping in Municipal Operations

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
1F	Operation / maintenance program	Public Works Department	Sweep all streets and clean all catch basins.	Swept 100% of town's roads (apprx. 33 miles) and cleaned and inspected approximately 500 CBs.	Continue the annual street sweeping and CB inspection/cleaning programs.
Revised					
2F	Employee training	Public Works Department	Conduct catch basin survey for integrity/dry weather flows.	Began training employees on all outfall locations and proper inspection techniques of outfalls and CBs.	Continue the training of all public works employees on outfall and CB inspections. Create logbooks to document inspections with location maps for all outfalls and CBs. Train employees on the proper actions needed for any type of chemical spills into stormwater system. Also, post procedure in the Highway Department Garage for reference.
Revised					
3F	Determine appropriate BMP	Public Works Department	Installed deep sump catch basins w/ infiltration trenches for new cemetery and Pleasant St. sidewalk & roadwork.	Four deep sump hooded CBs were replaced on Burnham Rd. One deep sump CB was installed on Kimball Ave. All proposed new/re-development plans have to be reviewed by the Public Works/Highway Department, and all new/replaced CBs are required to be installed with deep sumps. Appropriate BMPs are recommended for use whenever feasible. .	The Public Works/Highway Department will still review all plans for new/re-development to ensure appropriate BMPs are being implemented. The Public Works/Highway Department has $25,000 in their upcoming budget dedicated to replacing older CBs with new deep sump CBs.
Revised					

4F	Public involvement	Public Works Department / Health Department	Household hazardous waste collection / public participation.	Cleanup day for the Pleasant Pond shoreline and vicinity was performed on June 2006. Next scheduled hazardous waste collection day was for Year 5.	Cleanup day for the Pleasant Pond shoreline and vicinity is tentatively scheduled for June 2007. Additional cleanup days may be scheduled based on the interest of local community groups. A collection day is scheduled to tentatively take place on Sept. 8th with the Town of Hamilton.
Revised					

6a. Additions

7. BMPs for Meeting Total Maximum Daily Load (TMDL) Waste Load Allocations (WLA) *<<if applicable>>*

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
1G	Vegetation swales	Public Works Department	Reduce pollutants.	Continued to monitor opportunities to use vegetation swales on new/re-development projects and use on existing drainage facilities.	The Public Works/Highway Department will continue to monitor opportunities for use of vegetation swales.
Revised					
2G	Infiltration drain fields	Public Works Department	Reduce runoff.	Continued to monitor opportunities to use infiltration drain fields on new/re-development projects and use on existing drainage facilities.	The Public Works/Highway Department will continue to monitor opportunities for use of infiltration drain fields.
Revised					
3G	Dry wells	Public Works Department / Planning Board	Reduce runoff.	The one new residential development in Town was required to infiltrate all roof runoff on-site.	A grant from MADEP was obtained by the town to provide 50 rain barrels to residents, and will be distributed starting in May 2007. The Public Works/Highway Department and Planning Board will continue to monitor opportunities for drywell use.
Revised					
4G	Deep sumps / hooded catch basins	Public Works Department / Planning Board	Reduce sediment / pollutants.	Four deep sump hooded CBs were replaced on Burnham Rd. One deep sump CB was installed on Kimball Ave. All proposed new/re-installed CBs were required to have deep sumps.	Continue to enforce that all new/re-installed CBs have deep sumps. The Public Works/Highway Department has $25,000 in their upcoming budget dedicated to replacing older non-BMP CBs with new deep sump CBs.
Revised					

7a. Additions

7b. WLA Assessment

Not applicable – Draft Pathogen TMDLs have been prepared for the Ipswich River Watershed and North Coastal Watershed but have not yet been approved by the EPA.

Part IV. Summary of Information Collected and Analyzed

The town's drainage system is being mapped on a Geographic Information System (GIS). Approximately 95% of the entire town's stormwater infrastructure has been mapped and a total of 187 outfalls were located in the field, inventoried using Global Positioning System (GPS), and photographed during the duration of this permit. The locations and photographs for the outfalls are constantly being added and updated as they are found in the field on the Town's online GIS system.

Approximately 500 catch basins were visually inspected during the cleaning program and no dry weather (illicit discharge) issues were noted.

Part V. Program Outputs & Accomplishments (OPTIONAL)

(Since beginning of permit coverage unless specified otherwise by a **, which indicates response is for period covering April 1, 2006 through March 31, 2007)

Programmatic

	(Preferred Units)	Response
Stormwater management position created/staffed	(y/n)	N
Annual program budget/expenditures **	($)	
Total program expenditures since beginning of permit coverage	($)	
Funding mechanism(s) (General Fund, Enterprise, Utility, etc)		

Education, Involvement, and Training

Estimated number of property owners reached by education program(s)	(# or %)	4,000
Stormwater management committee established	(y/n)	N
Stream teams established or supported	(# or y/n)	
Shoreline clean-up participation or quantity of shoreline miles cleaned **	(y/n or mi.)	~0.25 mi.
Shoreline cleaned since beginning of permit coverage	(mi.)	~1.00 mi.
Household Hazardous Waste Collection Days		
▪ days sponsored **	(#)	0, the day will be in yr. 5
▪ community participation **	(# or %)	N/A
▪ material collected **	(tons or gal)	N/A
School curricula implemented	(y/n)	N

Legal/Regulatory

	In Place Prior to Phase II	Reviewing Existing Authorities	Drafted	Draft in Review	Adopted
Regulatory Mechanism Status (indicate with "X")					
▪ Illicit Discharge Detection & Elimination				X	
▪ Erosion & Sediment Control				X	
▪ Post-Development Stormwater Management				X	
Accompanying Regulation Status (indicate with "X")					
▪ Illicit Discharge Detection & Elimination				X	
▪ Erosion & Sediment Control				X	
▪ Post-Development Stormwater Management				X	

Mapping and Illicit Discharges

	(Preferred Units)	Response
Outfall mapping complete	(%)	~95%
Estimated or actual number of outfalls	(#)	187
System-Wide mapping complete (complete storm sewer infrastructure)	(%)	~95%
Mapping method(s)		
▪ Paper/Mylar	(%)	~95%
▪ CADD	(%)	0%
▪ GIS	(%)	~95%
Outfalls inspected/screened **	(# or %)	80%
Outfalls inspected/screened (Since beginning of permit coverage)	(# or %)	80%
Illicit discharges identified **	(#)	0
Illicit discharges identified (Since beginning of permit coverage)	(#)	0
Illicit connections removed **	(#); and (est. gpd)	0
Illicit connections removed (Since beginning of permit coverage)	(#); and (est. gpd)	0
% of population on sewer	(%)	<5%
% of population on septic systems	(%)	>95%

Construction

	(Preferred Units)	Response
Number of construction starts (>1-acre) **	(#)	1
Estimated percentage of construction starts adequately regulated for erosion and sediment control **	(%)	100%
Site inspections completed **	(# or %)	100%
Tickets/Stop work orders issued **	(# or %)	0
Fines collected **	(# and $)	0
Complaints/concerns received from public **	(#)	0

Post-Development Stormwater Management

Estimated percentage of development/redevelopment projects adequately regulated for post-construction stormwater control	(%)	100%
Site inspections (for proper BMP installation & operation) completed **	(# or %)	100%
BMP maintenance required through covenants, escrow, deed restrictions, etc.	(y/n)	Y
Low-impact development (LID) practices permitted and encouraged	(y/n)	Y

Operations and Maintenance

Average frequency of catch basin cleaning (non-commercial/non-arterial streets) **	(times/yr)	1
Average frequency of catch basin cleaning (commercial/arterial or other critical streets) **	(times/yr)	1
Qty of structures cleaned **	(#)	500
Qty. of storm drain cleaned **	(%, LF or mi.)	500 LF±
Qty. of screenings/debris removed from storm sewer infrastructure **	(lbs. or tons)	180 yd^3 ± or 81 tons±
Disposal or use of screenings (landfill, POTW, compost, beneficial use, etc.) **	(location)	Landfill

	(Preferred Units)	Response
Basin Cleaning Costs		
• Annual budget/expenditure (labor & equipment)**	($)	$3,500
• Hourly or per basin contract rate **	($/hr or $ per basin)	$8.00/hr.
• Disposal cost**	($)	$2,000
Cleaning Equipment		
• Clam shell truck(s) owned/leased	(#)	Contracted
• Vacuum truck(s) owned/leased	(#)	0
• Vacuum trucks specified in contracts	(y/n)	N
• % Structures cleaned with clam shells **	(%)	100%
• % Structures cleaned with vactor **	(%)	0%

Average frequency of street sweeping (non-commercial/non-arterial streets) **	(times/yr)	1
Average frequency of street sweeping (commercial/arterial or other critical streets) **	(times/yr)	1
Qty. of sand/debris collected by sweeping **	(lbs. or tons)	225 yd^3 ± or 101 tons±
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.) **	(location)	Landfill
Annual Sweeping Costs		
• Annual budget/expenditure (labor & equipment)**	($)	$6,700
• Hourly or lane mile contract rate **	($/hr. or ln mi.)	$95.00/ hr.
• Disposal cost**	($)	
Sweeping Equipment		
• Rotary brush street sweepers owned/leased	(#)	2
• Vacuum street sweepers owned/leased	(#)	0
• Vacuum street sweepers specified in contracts	(y/n)	N
• % Roads swept with rotary brush sweepers **	%	100%
• % Roads swept with vacuum sweepers **	%	0

Reduction (since beginning of permit coverage) in application on public land of: ("N/A" = never used; "100%" = elimination)		
▪ Fertilizers	(lbs. or %)	0%
▪ Herbicides	(lbs. or %)	N/A
▪ Pesticides	(lbs. or %)	N/A
Integrated Pest Management (IPM) Practices Implemented	(y/n)	Y

	(Preferred Units)	Response
Average Ratio of Anti-/De-Icing products used ** (also identify chemicals and ratios used in specific areas, e.g., water supply protection areas)	% NaCl % $CaCl_2$ % $MgCl_2$ % CMA % Kac % KCl % Sand	49.5%± 1%± 0% 0% 0% 0% 49.5%±
Pre-wetting techniques utilized **	(y/n or %)	Y
Manual control spreaders used **	(y/n or %)	Y
Zero-velocity spreaders used **	(y/n or %)	N
Estimated net reduction or increase in typical year salt/chemical application rate	(±lbs/ln mi. or %)	None
Estimated net reduction or increase in typical year sand application rate **	(±lbs/ln mi. or %)	None
% of salt/chemical pile(s) covered in storage shed(s)	(%)	100%
Storage shed(s) in design or under construction	(y/n or #)	N
100% of salt/chemical pile(s) covered in storage shed(s) by May 2008	(y/n)	Y

Water Supply Protection

Storm water outfalls to public water supplies eliminated or relocated	# or y/n	N
Installed or planned treatment BMPs for public drinking water supplies and their protection areas	# or y/n	N
• Treatment units induce infiltration within 500-feet of a wellhead protection area	# or y/n	N